

AWARD/CONTRACT		1. This Contract Is A Rated Order Under DPAS (15 CFR 700)		Rating DOA4		Page 1 Of 22	
2. Contract (Proc. Inst. Ident) No. DAAE07-03-C-L153		3. Effective Date 2003DEC16		4. Requisition/Purchase Request/Project No. SEE SCHEDULE			
5. Issued By TACOM WARREN BLDG 231 AMSTA-AQ-ABGD PHILLIP LAWRENCE (586)574-5273 WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL e-mail address: LAWRENCPT@TACOM.ARMY.MIL		Code W56HZV		6. Administered By (If Other Than Item 5) DCMA GRAND RAPIDS RIVERVIEW CENTER BLDG 678 FRONT ST., NW GRAND RAPIDS, MI 49504-5352 SCD C PAS NONE ADP PT HQ0337		Code S2303A	
7. Name And Address Of Contractor (No. Street, City, County, State, And Zip Code) ENGINEERED MACHINED PRODUCTS, INC. N/A 3111 N 28TH STREET ESCANABA, MI. 49829-9318 TYPE BUSINESS: Other Small Business Performing in U.S.				8. Delivery <input type="checkbox"/> FOB Origin <input checked="" type="checkbox"/> Other (See Below) SEE SCHEDULE			
				9. Discount For Prompt Payment			
				10. Submit Invoices (4 Copies Unless Otherwise Specified)			Item 12
Code 1HUX0		Facility Code		To The Address Shown In:			
11. Ship To/Mark For SEE SCHEDULE		Code		12. Payment Will Be Made By DFAS - COLUMBUS CENTER DFAS-CO/NORTH ENTITLEMENT OPERATION P.O. BOX 182266 COLUMBUS OH 43218-2266		Code HQ0337	
13. Authority For Using Other Than Full And Open Competition: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()				14. Accounting And Appropriation Data ACRN: AA 21 32040000036D7675P633005255Y S20113 W56HZV			
15A. Item No. SEE SCHEDULE	15B. Schedule Of Supplies/Services CONTRACT TYPE: Cost-Plus-Fixed-Fee		15C. Quantity		15D. Unit	15E. Unit Price	15F. Amount
				KIND OF CONTRACT: Research and Development Contracts			
Contract Expiration Date: 2004SEP30					15G. Total Amount Of Contract		\$726,564.00
16. Table Of Contents							
(X)	Section	Description	Page(s)	(X)	Section	Description	Page(s)
Part I - The Schedule				Part II - Contract Clauses			
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X	C	Description/Specs./Work Statement	5	X	J	List of Attachments	22
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X	E	Inspection and Acceptance	9		K	Representations, Certifications, and Other Statements of Offerors	
X	F	Deliveries or Performance	10				
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X	H	Special Contract Requirements	13		M	Evaluation Factors for Award	
Contracting Officer Will Complete Item 17 Or 18 As Applicable							
17. <input type="checkbox"/> Contractor's Negotiated Agreement (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. <input checked="" type="checkbox"/> Award (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.			
19A. Name And Title Of Signer (Type Or Print)				20A. Name Of Contracting Officer JOHN M. HOPFNER HOPFNERJ@TACOM.ARMY.MIL (586)574-7070			
19B. Name of Contractor By _____ (Signature of person authorized to sign)		19c. Date Signed		20B. United States Of America By _____ /SIGNED/ (Signature of Contracting Officer)		20C. Date Signed 2003DEC16	

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Name of Offeror or Contractor: ENGINEERED MACHINED PRODUCTS, INC.					
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS <u>DELIVERABLE SERVICE</u> SECURITY CLASS: Unclassified EST COST: \$691,966 FIXED FEE: \$ 34,598 TOTAL COST:\$726,564 (End of narrative B001)				
0001AA	<u>SERVICES LINE ITEM</u> CLIN CONTRACT TYPE: Cost-Plus-Fixed-Fee NOUN: ADV THERMAL MANAGEMENT SYS PRON: E132C507EH PRON AMD: 01 ACRN: AA AMS CD: 63300544011 <u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination <u>Deliveries or Performance</u> DLVR SCH PERF COMPL <u>REL CD</u> <u>QUANTITY</u> <u>DATE</u> 001 0 10-OCT-2004 \$ 364,000.00				\$ 364,000.00
0002	SECURITY CLASS: Unclassified				
0002AA	<u>Service Option</u> THIS OPTION IS NOT CURRENTLY FUNDED AND PERFORMANCE IS NOT AUTHORIZED. SEE CLAUSE H.11 AND SECTIONS C AND F.IF EXERCISED BY THE GOVERNMENT, THE OPTION VALUE WILL NOT EXCEED \$945,000. (End of narrative B002)				

Name of Offeror or Contractor: ENGINEERED MACHINED PRODUCTS, INC.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	<u>Inspection and Acceptance</u> INSPECTION: DestinationACCEPTANCE: Destination <u>Deliveries or Performance</u>				

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B.1 Estimated Cost and Payment

B.1.1 The estimated cost for performance of the work required under this contract is \$691,966 which shall constitute the estimated cost for the purpose of the Contract Clause hereof entitled LIMITATION OF FUNDS.

B.1.2 The contractor will be paid for the fixed fee stated in Section B opposite CLIN 0001 for the performance of work under the contract and in accordance with the terms of the Contract Clause entitled FIXED FEE, (Mar 1997), FAR 52.216-8. The fixed fee together with the reimbursement of cost shall constitute full and complete consideration for the contractor's service in connection with the work required and performed under this contract.

B.1.3 Allowable cost shall be determined, and payment thereof shall be provided, in accordance with the Contract Clause hereof entitled ALLOWABLE COST AND PAYMENT.

B.2 Payment

The contractor may submit public vouchers bi-monthly for payment under this contract. The fee will be payable at the time of reimbursement of cost at the same rate to such cost as the total fee of this contract bears to the total estimated cost thereof, subject to any withholding pursuant to provisions of this contract. The Paying Office shall disburse funds in accordance with the paragraph G.3 of this contract entitled "Special Instructions - Pay Oldest Money First (MAR2000)".

B.3 Funding

B.3.1 The Government shall provide funds under this contract covering the estimated cost hereof on an incremental basis as provided for in the following funding schedule and pursuant to the Contract Clause entitled LIMITATION OF FUNDS. It is estimated that the incremental amounts are sufficient for the performance of work in each of cited periods. The Government may, at its discretion, obligate such funds on an incremental basis within each fiscal year. The contractor shall so plan and execute the work required by this contract as to expend and/or commit funds compatible with the schedule set forth below. Whenever the contractor has reason to believe that the funds obligated to this contract for any fiscal year are either insufficient or excessive for the performance of work required in that fiscal year, the Government shall be so notified.

B.3.2 Funding Schedule

<u>Performance Period</u>	<u>Amount</u>
FY04 - Award through Dec 03	\$ 364,000.00
FY03 - Jan 04 through Completion	\$ 362,564.00

B.4 Funds Obligated. The amount of funds currently obligated to this contract is \$ 364,000.00.

*** END OF NARRATIVE B 001 ***

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
C-1	52.204-4003 (TACOM)	START OF WORK MEETING	MAY/2000

The contractor shall host a start of work meeting at its facility, unless some other location is designated in the contract, within 30 days after contract award. The contractor shall at a minimum invite the Contracting Officer's Representative (COR) identified in Section G or in an appointment letter, the Contract Specialist identified on the face page of this document, and the Administrative Contracting Officer (ACO). The COR, Contract Specialist, and ACO shall be given at least 14 days advance notice of the time, date, and location of the start of work meeting. The preferred method of notification is by email.

[End of Clause]

SECTION C

SCOPE OF WORK

C.1. OBJECTIVES: Engineered Machined Parts, Inc. (EMP) will provide all necessary labor, materials, supplies, facilities, equipment, and engineering/technical services to develop and demonstrate vehicle thermal management system technologies that will efficiently manage thermal loads on a Government furnished Ford Excursion while minimizing parasitic energy losses. The optimal thermal management system will use the current vehicle alternator and generator to supply the power required to obtain at least a 10% increase in fuel efficiency from the baseline as defined in C.2.2 below.

C. 2. TASKS

C.2.1. EMP will perform the following tasks:

C.2.2. The contractor will analyze the current thermal management system of the Government Furnished Equipment (GFE) light duty vehicle. This analysis will include heat rejection needs in various loads and temperatures, to include the following minimum and maximum loads. The minimum load will be the unloaded vehicle, and the maximum load will be the maximum load capacity of the vehicle, as provided by the COR. The contractor will record the ambient temperature for all tests performed. The contractor will also include an analysis of the thermal management system components such as the valve, pump, fan and heat exchanger which includes performance, efficiency and energy loss. Available data will be used wherever possible, but the contractor will perform any additional testing that proves necessary to generate data not already available in reliable form, or not available to a degree complete enough for analysis. This data will identify which components of the baseline system need to be redesigned or reconfigured, to afford the optimal improvements to the current vehicle thermal management system. These data will be input to the computer models discussed in section C.2.3. The baseline will determine the current fuel efficiency of the GFE vehicle.

C.2.3. The contractor will create the following computer models and software and use them in analysis, to include:

- (a) solid models of major components of the thermal management system, to include at a minimum the pumps, valves, fans, heat exchangers and controllers;
- (b) fluid dynamics models; and
- (c) system level models;

C.2.3.1 Finite Element Analysis (FEA) will be performed on necessary areas and components based on a report provided by the contractor for COR concurrence.

C.2.3.2 In constructing the computer models, the contractor will use software that is fully compatible with the MATLAB/Simulink software in use at TACOM. These models will be compared against the baseline tests and evaluations performed per C.2.2 above, to validate the models. The contractor will then use these models to perform what-if analysis of thermal management system configurations, to identify the best configuration for an optimal light duty vehicle thermal management system. This analysis will help define the performance requirements for the pumps, fans and heat exchangers.

C.2.4. The contractor shall design, build, and bench test prototype versions of the thermal management components making up the optimal thermal management system. These components will include pumps, valves, fans, heat exchangers and controllers as specified by the models in C.2.3. Bench tests will include tests sufficient to establish the performance and efficiency of all components. The contractor will define packaging constraints and select the best location for the thermal management system on the GFE vehicle.

C.2.5. The contractor will develop a test plan for its thermal management system and, once the plan is approved by the Government COR, the contractor will install the prototype components in the GFE vehicle (retaining all components and subsystems removed from the vehicle, for re-installation at the conclusion of prototype testing and demonstration) and test the vehicle per the test plan to determine the performance of the optimal thermal management system. Testing will include road and wind-tunnel tests. The contractor shall collect and analyze all test results to determine the extent of fuel economy improvement and other related performance features, whether positive or negative.

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C.2.6. The contractor will conduct a final analysis and assessment of the test results, make any necessary corrections to the contractor's optimal thermal management, and re-test the corrections, if any, to validate their effectiveness. The contractor will demonstrate the optimal design of the vehicle thermal management system and the computer models of the thermal management system at TACOM/NAC Warren, MI. At the conclusion of the contract period of performance, the contractor will write and submit to the COR, a final technical report, showing what was done, summarizing and analyzing the test results and making any final recommendations. The contractor shall remove its prototype components from the GFE vehicle and re-install those components which were on the vehicle when the contractor received it.

C.2.7. At the mid-point and end of the contract period, the contractor will write and submit to the COR, a Contractor's Status and Management Report in accordance with Contract Data Requirements List (CDRL) 1423, Data Item A001.

C.3 Option

C.3.1 In the event the contracting officer exercises the option contained in paragraph H 11 the contractor will perform the tasks set forth in paragraphs C.3,2 through C.3.8.

C.3.2. The contractor will analyze the results of the tasks defined in paragraphs C.1 through C.2.6 above, and recommend a vehicle platform that would be appropriate to use for the performance of the work set forth in paragraphs C.3.2. through C.3.8, if such a vehicle can be made available as GFE. The Government reserves the right, based on the contractor's recommendation, the results of the basic contract effort, and the availability of Government vehicles, to provide a vehicle platform for analysis that may include one of the following:

- A true hybrid of a light duty vehicle
- Other light duty commercial vehicles for comparison
- A commercial based medium duty vehicle
- A commercial based heavy duty vehicle
- An off-highway vehicle such as construction or agricultural equipment
- A bus or urban transport vehicle
- A vehicle from an ongoing advanced vehicle programs such as FTTS or FCS
- A vehicle with a fuel cell
- A vehicle incorporating other novel, experimental, or prototype electric accessories including oil pumps, power steering, transmission pumps, fuel pumps, etc.
- A combination of the above

Irrespective of the evaluation results, as a minimum, the contractor will apply the results of the contractor's design and development effort, as set forth in C.3.3 through C.3.8, to a GFE Ford Excursion and a GFE FMTV on site at the contractor's location.

C.3.3. The contractor will receive the GFE vehicle and will proceed to baseline and characterize the standard coolant & lubrication system of the selected vehicle. This baseline analysis will be performed in accordance with C.2.2.

C.3.4. The contractor will model the GFE vehicle's thermal management system to perform what-if analysis and determine the optimal configuration of a thermal management system for that vehicle. The models developed per this paragraph C.3.4 will be compatible with those used in C.2.3.

C.3.5. The contractor will design, prototype and bench test the selected optimal thermal management system and its components. Bench tests will include performance and efficiency of all components. The contractor will define packaging constraints and select the best location for the thermal management system on the vehicle.

C.3.6. The contractor will install the optimal system into the GFE vehicle (retaining all components and subsystems removed from the vehicle, for re-installation at the conclusion of prototype testing and demonstration, per C.3.8) and perform tests and comparisons. Testing will be performed in accordance with C.2.5.

C.3.7. The contractor will conduct a final analysis and assessment of the test results, make any necessary corrections to the contractors optimal thermal management, and re-test the corrections, if any, to validate their effectiveness. The contractor will demonstrate the optimal on vehicle thermal management system and the computer models of the thermal management system at TACOM/NAC Warren, MI. At the conclusion of the contract period of performance, the contractor will write a final technical report, showing what was done, summarizing and analyzing the test results, and making the final recommendations.

C.3.8. The contractor shall remove its prototype components from the GFE vehicle and re-install those components which were on the vehicle when the contractor received it.

C.4.0. At the end of each subtask in paragraph C.2 (and also C.3.2 through C.3.8 above if the contracting officer exercises the option in H.11), the contractor shall convene a program review (unless informed otherwise by the PCO) for the COR, to present the results of work on each subtask specified above. Within one week after each program review, the contractor shall write and e-mail to the COR

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minutes of the review, summarizing what was presented, summarizing any discussion and action items, and including copies of any presentations made during the review. To minimize the number of trips required, the program reviews shall be held at the contractor's facilities as much as possible and in conjunction with other meetings.

C.5.0 Within thirty (30) days after award of the contract, the contractor shall convene a Start of Work meeting, at TACOM/NAC Warren, MI and shall prepare and provide minutes of the meeting to the COR within 10 days after the meeting. This meeting shall delineate the program schedule, the spending profile, the requirements for the reports, description of the system, and the vehicle platform to be used for demonstrating the system. The contractor shall coordinate the exact date and time for the Start of Work meeting with the COR, and will provide the COR, ACO, and the buyer an e-mailed notice at least one week in advance of the meeting, to confirm the final date, time, and TACOM building and room number for the meeting.

C.6.0 Travel Requirements:

One (1) trip consisting of a two (2) day trip to TACOM/NAC Warren, MI. The purpose of this trip is for Start of Work Meeting per C.5.

One (1) trip consisting of a two (2) day trip to TACOM/NAC Warren, MI. The purpose of this trip is the demonstration of the on vehicle thermal management system per C.2.6.

C.7.0 Deliverables:

Contractor's Progress, Status and Management Report in accordance with Contract Data Requirements List (CDRL) 1423, Data Item A001.

Scientific and Technical in accordance with Contract Data Requirements List (CDRL) 1423, Data Item A002.

C.7.0 Government Furnished Equipment (GFE) List (if any):

Vehicle: Ford Excursion

*** END OF NARRATIVE C 001 ***

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SECTION D - PACKAGING AND MARKING

D.1 Packaging

D.1.1 The Contractor shall package all data deliverables under this contract in accordance with standard commercial practice to ensure arrival at destination without damage or loss.

D.2 Marking

D.2.1 Software. The Contractor shall mark all data deliverables under this contract with this contract number, the contractor's name and address and, where applicable, the name and address of the subcontractor who generated the data.

*** END OF NARRATIVE D 001 ***

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SECTION E - INSPECTION AND ACCEPTANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
E-1	52.246-9	INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM)	APR/1984
E-2	52.246-4030 (TACOM)	INSPECTION POINT: DESTINATION	AUG/1994

We'll make our Procurement Quality Assurance inspection at the destination(s) listed in the Schedule. We'll be checking the supplies to make sure they conform with applicable drawings and specifications.

[End of Clause]

E-3	52.246-4031 (TACOM)	ACCEPTANCE POINT: DESTINATION	AUG/1994
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The Government will accept the supplies at the destination(s) listed in the Schedule.

[End of Clause]

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SECTION F - DELIVERIES OR PERFORMANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
F-1	52.242-15	STOP WORK ORDER--(ALTERNATE I dated APR 1984)	AUG/1989
F-2	52.247-34	F.O.B. DESTINATION	NOV/1991
	F.1.1 Data		
	F.1.2	The delivery schedule for the data items is found on Exhibit A, The Contract Data Requirements List (DD Form 1423).	
	F.1.3.	All data deliverables under this contract shall be delivered electronically to the email addresses specified in the Contract Data Requirements List (CDRL) DD Form 1423.	
	F.2	Period of Performance	
	F.2.1	The period of performance of this contract is 10 months from contract award.	
	F.2.1	The period of performance of the option is a maximum of 12 months from the expiration of the basic contract performance period.	
	F.3	All hardware and hardcopy documents shall be shipped FOB Destination to the following address:	
	U.S.Army TACOM		
	Attn: AMSTA-TR-N (Jeff Kozierowski)		
	6501 E. 11 Mile Road		
	Warren, MI 48397-5000		
	All other deliverables must be sent by e-mail to the following addresses unless alternative arrangements are made with the Contracting Officer's Representative:		
	kozierj@tacom.army.mil, and lawrencp@tacom.army.mil.		
	F.3.1	The contractor shall deliver the following:	
	Contractor's Progress, Status, and Management Report in accordance with Contract Data Requirements List(CDRL)	Quarterly with first report due 90 days after award	
	Final Scientific and Technical Report:	30 Days after completion of work	
	*** END OF NARRATIVE F 001 ***		

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SECTION G - CONTRACT ADMINISTRATION DATA

LINE ITEM	PRON/ AMS CD/		OBLG STAT	ACCOUNTING CLASSIFICATION	JOB ORDER NUMBER	ACCOUNTING STATION		OBLIGATED AMOUNT
	MIPR	ACRN						
0001AA	E132C507EH	AA	2	21 32040000036D7675P633005255Y S20113	32C507	W56HZV	\$	364,000.00
	63300544011							
TOTAL							\$	364,000.00

SERVICE NAME	TOTAL BY ACRN	ACCOUNTING CLASSIFICATION	ACCOUNTING STATION	OBLIGATED AMOUNT
Army	AA	21 32040000036D7675P633005255Y S20113	W56HZV	\$ 364,000.00
TOTAL				\$ 364,000.00

Regulatory Cite	Title	Date
G-1 52.242-4016 (TACOM)	COMMUNICATIONS	MAY/2000

(a) Communications on technical matters pertaining to the contract shall be direct between the contractor and the Technical Representative. Communications for the Technical Representative shall be addressed to:

name: Jeffrey Kozierowski
e-mail:kozieroj@tacom.army.mil

(b) The Administrative Contracting Officer's (ACO) name and email address are also provided if known at this time:

ACO: Ms. Marla Armstrong
e-mail: Marla.Armstrong@dcma.mil

(c) Please see the appointment letters prepared at time of contract award for functions the Technical Representative and ACO will perform on this contract.

[End of Clause]

G-2	252.201-7000	CONTRACTING OFFICER'S REPRESENTATIVE	DEC/1991
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(a) Definition. Contracting Officer's Representative means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

[End of Clause]

G.3 (TACOM) SPECIAL PAYING INSTRUCTIONS: PAY OLDEST MONEY FIRST (MAR 2000)

This contract currently is funded (or later will be funded) by two or more separate funding documents, as shown in Section G of the contract by the presence of more than one long-line accounting classification for the Contract Line Item Numbers (CLINs) in the contract schedule. The funding represents (or later will represent) appropriations made available for obligation in more than one fiscal year.

In order for disbursements under the contract to be paid appropriately, the following requirements apply to the paying office:

The PAYING OFFICE: shall determine the total amount requested on each invoice or payment voucher received against the contract. Each payment shall be made against the oldest funding line(s) in the contract for which funds remain available. If the oldest

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fiscal year is represented by two or more accounting lines that still contain funds, payment shall be made equally against all accounting lines representing the oldest fiscal year until such lines are completely disbursed.

First example: the contract includes one accounting line from fiscal year 1999 and two accounting lines from fiscal year 2000. Result: disbursements against new invoices are made on the fiscal 1999 accounting line until it is completely disbursed, before any disbursements are made against the fiscal year 2000 accounting lines. Once disbursements start against the fiscal year 2000 lines, those payments will be split equally between the two available fiscal 2000 lines.

Second example: the contract includes four accounting lines from fiscal year 1999 and one accounting line from fiscal year 2000. Result: disbursements against new invoices are made and recorded equally against each of the four fiscal 1999 accounting lines. If one of the 1999 accounting lines becomes completely disbursed but money remains available on other 1999 lines, then payment on subsequent invoices will be made and recorded equally among the remaining 1999 lines until they become completely disbursed, before disbursements are made against the fiscal year 2000 line.

*** END OF NARRATIVE G 001 ***

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

	Regulatory Cite	Title	Date
H-1	252.205-7000	PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS	DEC/1991
H-2	252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES	APR/2003
H-3	252.231-7000	SUPPLEMENTAL COST PRINCIPLES	DEC/1991
H-4	252.235-7011	FINAL SCIENTIFIC OR TECHNICAL REPORT	SEP/1999
H-5	252.242-7004	MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM	DEC/2000
H-6	252.246-7000	MATERIAL INSPECTION AND RECEIVING REPORT	MAR/2003
H-7	252.246-7001	WARRANTY OF DATA	DEC/1991
H-8	52.204-4005 (TACOM)	REQUIRED USE OF ELECTRONIC CONTRACTING	DEC/2002

(a) All contract awards, modifications and delivery orders issued by TACOM will be issued electronically. The contractor has the option to receive these actions either via the Worldwide Web (WWW) or Electronic Data Interchange (EDI). Many provisions and clauses appear "by reference," meaning only clause titles and regulation site are listed; their full texts can be found at the website <http://farsite.hill.af.mil/>

(b) In order to be eligible to receive an award under this solicitation, the successful offeror must be registered with the Department of Defense (DOD) Central Contractor Registration (CCR). The CCR registration process may be done electronically at the World Wide Web (WWW) site: <http://www.ccr.gov/> . (In order to be registered to use EDI, you must use the long form for registration. Certification information, including information on the EDI 838 TPP, must be furnished to the Contracting Officer within 60 calendar days after contract award to complete networking requirements within the Government.)

(c) Worldwide Web Distribution. The contractor will receive an electronic Notice of the Award, Modification, or Delivery Order via e-mail. If you choose the WWW option, you must download the file from the appropriate TACOM webpage:

Warren: http://contracting.tacom.army.mil/awards_official.htm
Rock Island: <http://aais.ria.army.mil/AAIS/AWDINFO/index.htm>
Picatinny: <http://procnet.pica.army.mil/Contracts/Index.htm>
Red River Army Depot: <http://www.redriver.army.mil/contracting/Awards>
Anniston Army Depot: <http://www.anadprocnet.army.mil>

(d) Electronic Data Interchange. If you choose to receive contract awards, modifications and delivery orders through EDI, they will be delivered electronically via the Federal Acquisition Network (FACNET). Federal Standard Version 3050 of Standard X12 from the American National Standards Institute (ANSI) will be used as the format for these electronic transactions.

(1) You must complete the EDI 838 Trading Partner Profile, and must agree (i) to subcontract with a DoD certified VAN or Value Added Service (VAS) provider, or (ii) to become DoD certified as a Value Added Network (VAN). The EDI 838 Training Partner Profile is contained in the basic CCR registration form and includes portions of the registration form which are titled "Optional".

(2) You must select a VAN from the official DoD approved list. DoD Certified VANs are listed at <http://www.acq.osd.mil/ec/ecip/index.htm> . If your VAN is later removed from the official list, or if you voluntarily drop your initially selected VAN, then you must switch to a VAN that remains on the official DoD approved list. You must maintain an active account on a DoD approved VAN for the entire duration of the contract, beginning no later than the 60th day after award.

(e) Unless otherwise specified elsewhere in the contract, all data items you are required to provide under this contract must be submitted electronically. Acceptable formats include:

(1) Microsoft* 97 Office Products (TACOM can currently read OFFICE 97* and lower.): Word, Excel, Powerpoint, or Access

(2) 100 OR 250 MEGABYTE ZIP*-DISK, 3 1/2 INCH DISK, OR 650 MEGABYTE CD ROM

(3) E-MAIL (Maximum size of each e-mail message is be three and one-half (3.5) megabytes).

(4) Other electronic formats. Before submitting your data in any other electronic format, please e-mail the buyer identified on the face of the contract, with e-mail copy-furnished to amsta-idq@tacom.army.mil, to obtain a decision as to the format's acceptability. This e-mail must be received by the buyer not later than ten calendar days before the required data submission date.

NOTE: The above formats may be submitted in compressed form using self-extracting files.

(f) Additional information can be obtained by sending a message to: acqcenweb@tacom.army.mil or by calling (586) 574-7059.
[End of Clause]

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SECTION I - CONTRACT CLAUSES

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <http://farsite.hill.af.mil/>

[End of Clause]

	Regulatory Cite	Title	Date
I-1	52.202-1	DEFINITIONS	DEC/2001
I-2	52.203-3	GRATUITIES	APR/1984
I-3	52.203-5	COVENANT AGAINST CONTINGENT FEES	APR/1984
I-4	52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	JUL/1995
I-5	52.203-7	ANTI-KICKBACK PROCEDURES	JUL/1995
I-6	52.203-8	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-7	52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-8	52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	JUN/2003
I-9	52.204-4	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	AUG/2000
I-10	52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	JUL/1995
I-11	52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS	SEP/1990
I-12	52.215-2	AUDIT AND RECORDS - NEGOTIATIONS	JUN/1999
I-13	52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	OCT/1997
I-14	52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT/1997
I-15	52.215-17	WAIVER OF FACILITIES CAPITAL COST OF MONEY	OCT/1997
I-16	52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	OCT/1997
I-17	52.216-7	ALLOWABLE COST AND PAYMENT	DEC/2002
I-18	52.216-8	FIXED FEE	MAR/1997
I-19	52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	OCT/2000
I-20	52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN	JAN/2002
I-21	52.219-16	LIQUIDATED DAMAGES - SUBCONTRACTING PLAN	JAN/1999
I-22	52.222-1	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES	FEB/1997
I-23	52.222-4	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT--OVERTIME COMPENSATION	SEP/2000
I-24	52.222-20	WALSH-HEALEY PUBLIC CONTRACTS ACT	DEC/1996
I-25	52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB/1999
I-26	52.222-26	EQUAL OPPORTUNITY	APR/2002
I-27	52.222-35	AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	DEC/2001
I-28	52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN/1998
I-29	52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC/2001
I-30	52.223-6	DRUG FREE WORKPLACE	MAY/2001
I-31	52.223-14	TOXIC CHEMICAL RELEASE REPORTING	AUG/2003
I-32	52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN/2003
I-33	52.226-1	UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES	JUN/2000
I-34	52.227-1	AUTHORIZATION AND CONSENT (ALTERNATE I dated April 1984)	JUL/1995
I-35	52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	AUG/1996
I-36	52.227-11	PATENT RIGHTS--RETENTION BY THE CONTRACTOR (SHORT FORM)	JUN/1997
I-37	52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR/1996
I-38	52.232-17	INTEREST	JUN/1996
I-39	52.232-22	LIMITATION OF FUNDS	APR/1984
I-40	52.232-23	ASSIGNMENT OF CLAIMS	JAN/1986
I-41	52.232-25	PROMPT PAYMENT	FEB/2002
I-42	52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER--CENTRAL CONTRACTOR REGISTRATION	OCT/2003
I-43	52.233-1	DISPUTES	JUL/2002
I-44	52.233-3	PROTEST AFTER AWARD -- (ALTERNATE I, dated JUN 1985)	AUG/1996
I-45	52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR/1984
I-46	52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY/2001
I-47	52.242-13	BANKRUPTCY	JUL/1995
I-48	52.243-2	CHANGES--COST-REIMBURSEMENT (ALTERNATE V, dated April 1984))	AUG/1987
I-49	52.243-7	NOTIFICATION OF CHANGES	APR/1984

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I-50	52.244-2	SUBCONTRACTS (ALT I--AUG 1998)	AUG/1998
I-51	52.244-5	COMPETITION IN SUBCONTRACTING	DEC/1996
I-52	52.245-5	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (Deviation, per DAR Tracking Number 99-00008, 13 July 99)	JUN/2003
I-53	52.246-23	LIMITATION OF LIABILITY	FEB/1997
I-54	52.249-6	TERMINATION (COST-REIMBURSEMENT)	SEP/1996
I-55	52.249-14	EXCUSABLE DELAYS	APR/1984
I-56	52.253-1	COMPUTER GENERATED FORMS	JAN/1991
I-57	252.204-7003	CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT	APR/1992
I-58	252.209-7000	ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ON-SITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY	NOV/1995
I-59	252.209-7004	SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY per DoD interim rule, Federal Register 27 Mar 98	MAR/1998
I-60	252.211-7005	SUBSTITUTIONS FOR MILITARY OR FEDERAL SPECIFICATIONS AND STANDARDS	FEB/2003
I-61	252.215-7000	PRICING ADJUSTMENTS	DEC/1991
I-62	252.215-7002	COST ESTIMATING SYSTEM REQUIREMENTS	OCT/1998
I-63	252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES	APR/2003
I-64	252.225-7012	PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES	FEB/2003
I-65	252.225-7031	SECONDARY ARAB BOYCOTT OF ISRAEL	APR/2003
I-66	252.227-7013	RIGHTS IN TECHNICAL DATA -- NONCOMMERCIAL ITEMS (ALT I)	JUN/1995
I-67	252.227-7014	RIGHTS IN NONCOMMERCIAL COMPUTER SOFTWARE AND NONCOMMERCIAL COMPUTER SOFTWARE DOCUMENTATION	JUN/1995
I-68	252.227-7030	TECHNICAL DATA--WITHHOLDING OF PAYMENT	MAR/2000
I-69	252.244-7000	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (DoD CONTRACTS)	MAR/2000
I-70	52.222-2	PAYMENT FOR OVERTIME PREMIUMS	JUL/1990
(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed 0 or the overtime premium is paid for work--			
(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdown of production equipment, or occasional production bottlenecks of a sporadic nature;			
(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;			
(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or			
(4) That will result in lower overall costs to the Government.			
(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--			
(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;			
(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;			
(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and			
(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.			
(End of clause)			
I-71	52.219-4	NOTICE OF PRICE EVALUATION FOR HUBZONE SMALL BUSINESS CONCERNS	JAN/1999
(a) Definition. HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.			
(b) Evaluation preference.			
(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--			

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Name of Offeror or Contractor: ENGINEERED MACHINED PRODUCTS, INC.

- (i) Offers from HUBZone small business concerns that have not waived the evaluation preference;
 - (ii) Otherwise successful offers from small business concerns;
 - (iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and
 - (iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.
- (2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.
- (3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.
- (c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.
- [] Offer elects to waive the evaluation preference.
- (d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for
- (1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;
 - (2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;
 - (3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or
 - (4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.
- (e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants;
- (f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

[End of Clause]

I-72 52.223-11 OZONE-DEPLETING SUBSTANCES MAY/2001

- (a) Definition. Ozone-depleting substance, as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR part 82 as--
- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
 - (2) Class II, including but not limited to, hydrochlorofluorocarbons.
- (b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j(b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:
- WARNING: Contains (or manufactured with, if applicable) _____ * _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

*The Contractor shall insert the name of the substance(s).

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[End of Clause]

I-73 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES APR/1984

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the date of the clause.

(b) The use in this solicitation or contract of any DoD FAR Supplement (DFARS) (48 CFR 2) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the name of the regulation.

[End of Clause]

I-74 252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION NOV/2001

(a) Definitions. As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)

(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.gov>.

[End of Clause]

I-75 252.225-7015 PREFERENCE FOR DOMESTIC HAND OR MEASURING TOOLS DEC/1991

The Contractor agrees to deliver under this contract only hand or measuring tools produced in the United States or its possessions.

(End of clause)

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I-76 252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA MAY/2002

(a) Definitions. As used in this clause--

- (1) Components means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.
- (2) Department of Defense (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.
- (3) Foreign flag vessel means any vessel that is not a U.S.-flag vessel.
- (4) Ocean transportation means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.
- (5) Subcontractor means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract. However, effective May 1, 1996, the term does not include a supplier, materialman, distributor, or vendor of commercial items or commercial components.
- (6) Supplies means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.
 - (i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.
 - (ii) Supplies includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.
- (7) U.S.-flag vessel means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)

- (1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.
- (2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if-
 - (i) This contract is a construction contract; or
 - (ii) The supplies being transported are-
 - (A) Noncommercial items; or
 - (B) Commercial items that-
 - (1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);
 - (2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or
 - (3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

- (c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that--
 - (1) U.S.-flag vessels are not available for timely shipment;
 - (2) The freight charges are inordinately excessive or unreasonable; or
 - (3) Freight charges are higher than charges to private persons for transportation of like goods.
- (d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least

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45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum--

- (1) Type, weight, and cube of cargo;
- (2) Required shipping date;
- (3) Special handling and discharge requirements;
- (4) Loading and discharge points;
- (5) Name of shipper and consignee;
- (6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Division of National Cargo, Office of Market Development, Maritime Administration, U.S. Department of Transportation, Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information--

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;
- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars; and
- (10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

- (1) No ocean transportation was used in the performance of this contract;
- (2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM	CONTRACT		
DESCRIPTION	LINE ITEMS	QUANTITY	TOTAL

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based

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on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h) in all subcontracts that exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

[End of Clause]

I-77	52.204-4009	MANDATORY USE OF CONTRACTOR TO GOVERNMENT ELECTRONIC COMMUNICATION	JUN/1999
	(TACOM)		

(a) All references in the contract to the submission of written documentation shall mean electronic submission. All electronic submissions shall be in the formats and media described in the "Electronic Quotations/Offers/Bids Required in Response to this Request for Quotations/Proposals/Bids" clause elsewhere in this document. (See Section K for commercial acquisitions, Section L for RFPs, and Section I for RFQs.)

(b) This shall include all written unclassified communications between the Government and the Contractor except contract awards and contract modifications which shall be posted on the internet. Return receipt shall be used if a commercial application is available. Classified information shall be handled in full accordance with the appropriate security requirements.

(c) In order to be contractually binding, all Government communications requiring a Contracting Officer signature must be sent from the Contracting Officer's e-mail address. The Contractor shall designate the personnel with signature authority who can contractually bind the contractor. All binding contractor communication shall be sent from this contractor e-mail address(es).

(d) Upon award, the Contractor shall provide the Contracting Officer with a list of e-mail addresses for all administrative and technical personnel assigned to this contract.

(e) Unless exempted by the Procuring Contracting Officer in writing, all unclassified written communication after contract award shall be transmitted electronically.

[End of Clause]

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SECTION J - LIST OF ATTACHMENTS

<u>List of</u> <u>Addenda</u>	<u>Title</u>	<u>Date</u>	<u>Number</u> <u>of Pages</u>	<u>Transmitted By</u>
Exhibit A	CONTRACT DATA REQUIREMENTS LIST	18-SEP-2003	001	

CONTRACT DATA REQUIREMENT LIST

Form Approval OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.A. CONTRACT LINE ITEM NO.: 0001D. SYSTEM/ITEM.....: R&DB. EXHIBIT: A0001E.
CONTRACT/PR NO.: C. CATEGORY.....: F. CONTRACTOR.....: Engineered Machined Products, Inc.1. DATA ITEM NO.: A0012. TITLE OF DATA ITEM: Contractor Progress, Status, and Management Report3. SUBTITLE: NA4. AUTHORITY: 5. CONTRACT REFERENCE: 6. REQUIRING OFFICE: AMSTA-TR-N 9. DIST. STATEMENT REQUIRED.: No12. DATE OF FIRST SUB.: See Block 167. DD250 REQ: Yes10. FREQUENCY: Quarterly13. DATE OF SUBS. SUB...: See Block 168. APP CODE: NA11. AS OF DATE: See Block 1614. DISTRIBUTION A. ADDRESSEES

COPIES:DRAFTFINALJeff Kozierowski, Contracting Officer's Representative (COR), E-mail: kozieroj@tacom.army.mil 1 Phil
Lawrence, Contract Specialist, E-Mail: lawrencp@tacom.army.mil 1

buyer to fill, Administrative Contracting Officer (ACO), E-mail: buyer to fill 15.
TOTAL: 1 16. REMARKS: Electronic Format (MS Word Compatible). Contractor format is acceptable. Submission of the first progress report is required by 90 days after contract award. All reports must be emailed to the COTR. (See block 14) Any photos or other portions of the progress reports, which cannot be feasibly be sent electronically, may be sent in hard copy by mail to the COTRs mailing address with concurrence of the COTR. The progress report shall also describe any significant problems, accomplishments, and findings since the beginning of the contract or since the last progress report.17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE :1. DATA ITEM NO.: A0022. TITLE OF DATA ITEM: Draft Report and Final Report3. SUBTITLE: 4. AUTHORITY: 5. CONTRACT REFERENCE: 6. REQUIRING OFFICE: AMSTA-TR-N 9. DIST. STATEMENT REQUIRED.: No12. DATE OF FIRST SUB: 7. DD250 REQ: Yes10. FREQUENCY: One-Time13. DATE OF SUBS. SUB.: 8. APP CODE: 11. AS OF DATE: 14. DISTRIBUTION A. ADDRESSEES B. COPIES:DRAFTFINALCOTR: Jeff Kozierowski, kozieroj@tacom.army.mil

1 Buyer: Phil Lawrence, lawrencp@tacom.army.mil

1 Defense Technical Information

Center (DTIC) , Cameron VA

1 15. TOTAL: 3 16. REMARKS: Electronic Format (MS Word Compatible). Contractor format is acceptable. Draft report due in conjunction with completion of work. Government to review/approve within 15 days of receipt. The final technical report shall be delivered to the government 15 days after receiving approval of draft. .All reports must be emailed to the COTR, Buyer and DTIC (See Block 14). Any photos or other portions of the draft report and the final technical report, which cannot be feasibly be sent electronically, may be sent in hard copy by mail to the COTRs mailing address with concurrence of the COTR. The draft report and the final technical report shall describe the final outcome and status of all contract tasks. The draft report and the final technical report shall also describe all significant problems, accomplishments, and findings of the contract17. PRICE GROUP:18. ESTIMATED TOTAL PRICE:1. DATA ITEM NO.: A0032. TITLE OF DATA ITEM : 3. SUBTITLE: 4. AUTHORITY.....: 5. CONTRACT REF.....: 6. REQUIRING OFFICE: 9. DIST. STATEMENT REQUIRED.:12. DATE OF FIRST SUB.: 7. DD250 REQ: 10. FREQUENCY: 13. DATE OF SUBS. SUB.: APP CODE: 11. AS OF DATE: 14. DISTRIBUTION A. ADDRESSEES

B. COPIESDRAFTFINAL 15. TOTAL:16. REMARKS: 17. PRICE

GROUP:18. ESTIMATED TOTAL PRICE: